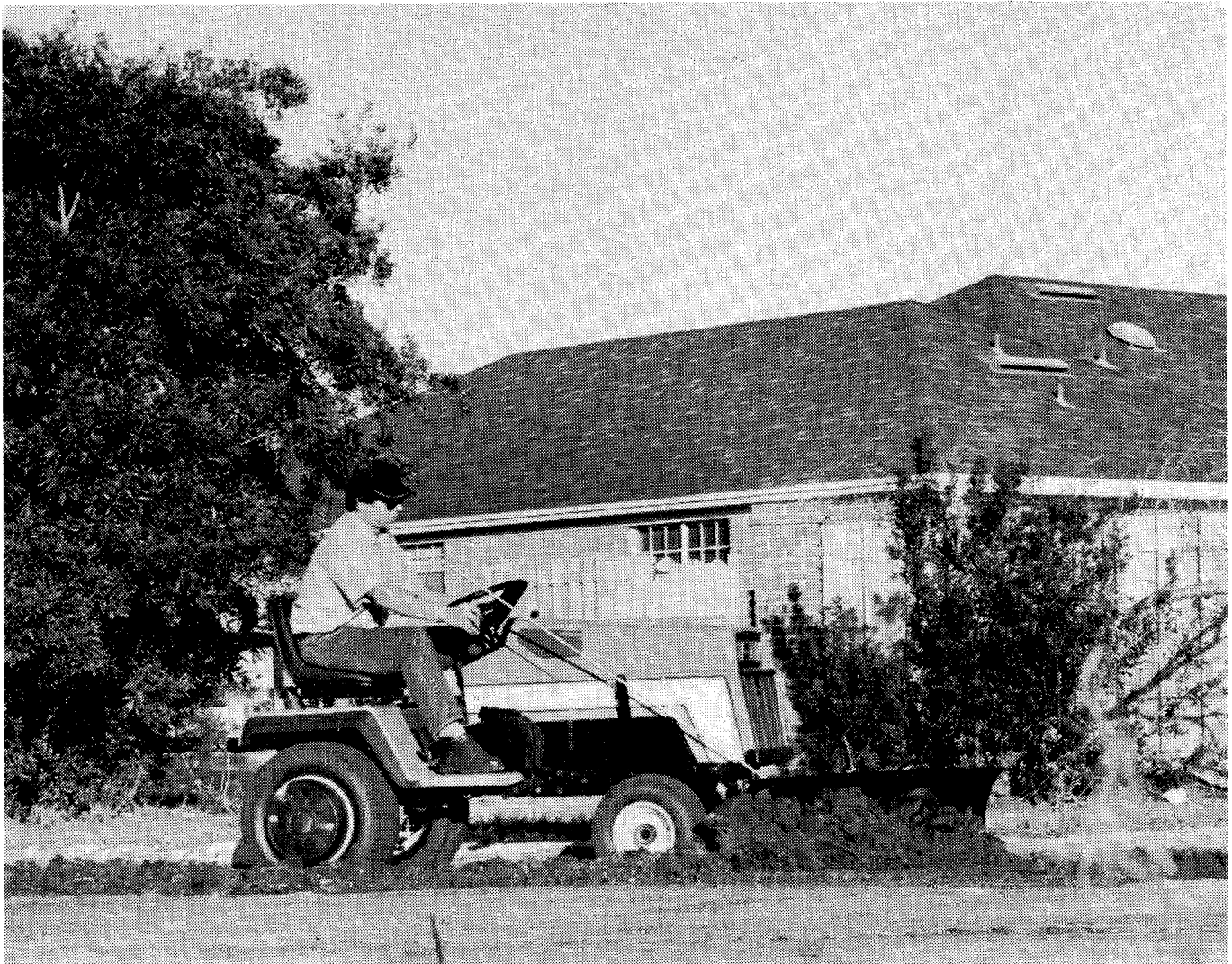
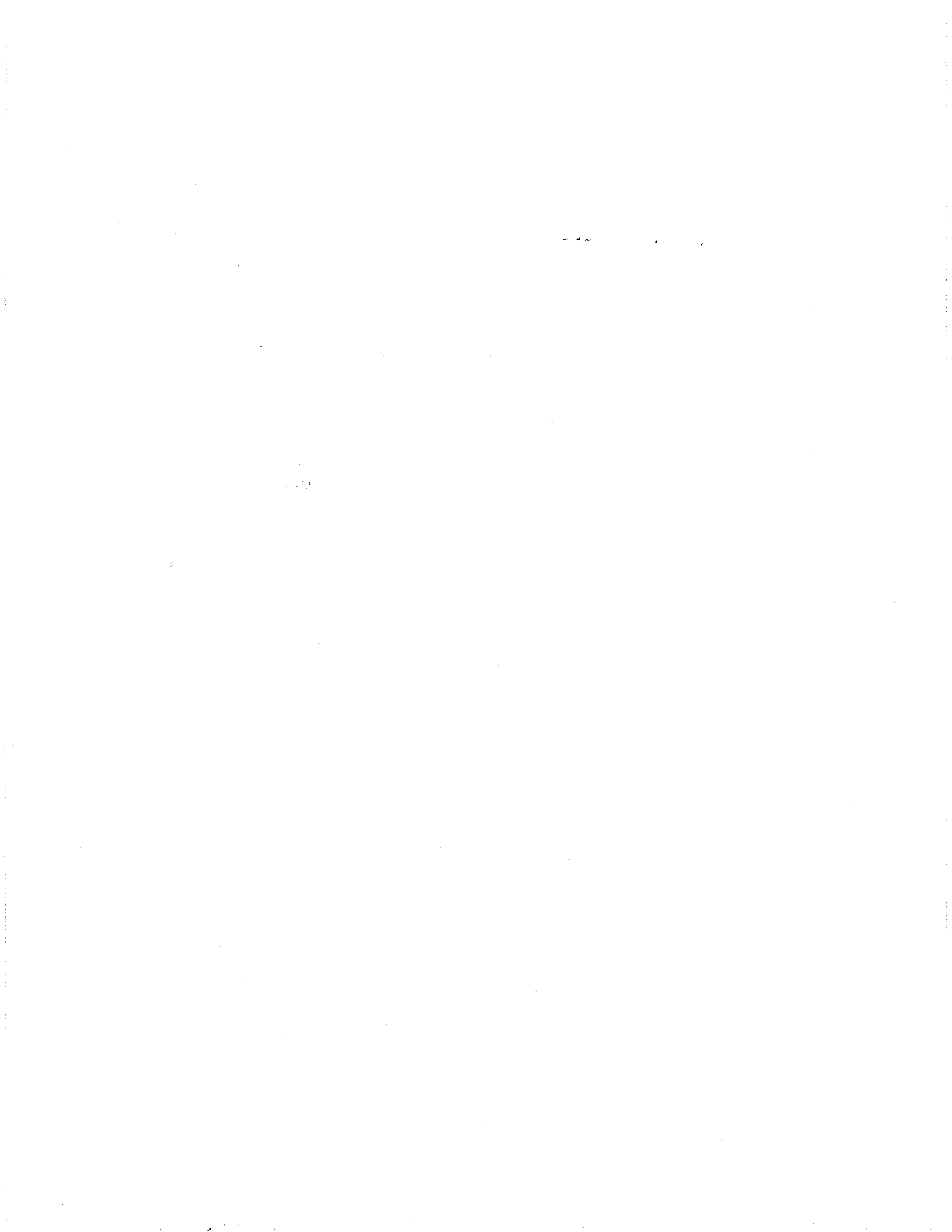


INSTALLATION AND OPERATION INSTRUCTIONS

*DOZER BLADE WITH
HYDRAULIC CONTROL
MFG. NO. 1691365*

*DOZER BLADE WITH
MANUAL CONTROL
MFG. NO. 1691000*





GENERAL

Both dozer blades are raised and lowered with the hydraulic lift lever. Mfg. No. 1691365 is equipped with a hydraulic cylinder, so that the angle of the blade is controlled with a hydraulic lever. Mfg. No. 1691000 is not equipped with a hydraulic cylinder, therefore the angle of the blade is controlled manually with a handle.

REQUIRED ACCESSORIES

To install Mfg. No. 1691365 dozer blade, an auxiliary hydraulic kit, Mfg. No. 1691195, must be installed. A new valve (figure 1A) is included in the kit. Be sure to install restriction washer in the new valve.

INSTALL RESTRICTION WASHER

A washer is provided which must be added to the hydraulic valve. The purpose of this washer is to reduce travel time when dozer is raised or lowered. This washer has an outside diameter of 1/2 inch, and has a hole in the middle slightly smaller than 1/16 inch. Install washer as follows. For Mfg. No. 1691365, refer to Figure 1A. For Mfg. No. 1691000, refer to Figure 1B.

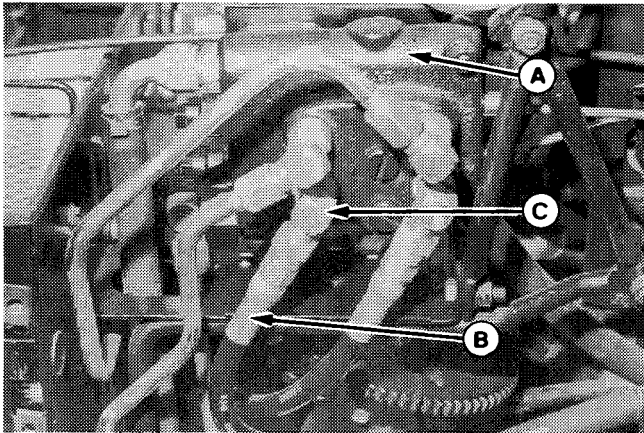


Figure 1A Mfg. No. 1691365
A. Valve B. Hose C. Elbow

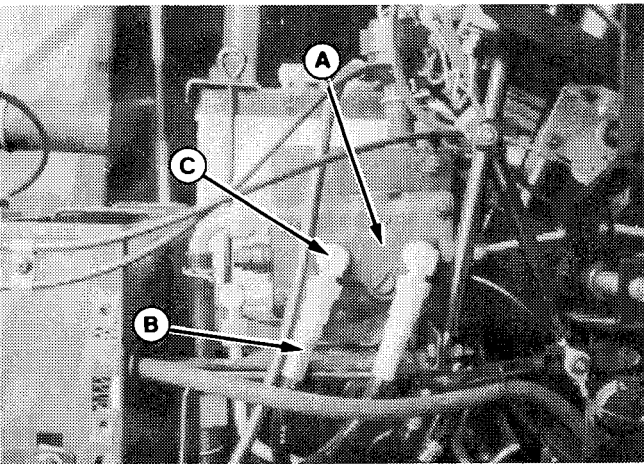


Figure 1B Mfg. No. 1691000
A. Valve B. Hose C. Elbow

1. Remove the upper left-hand panel from the tractor to expose the valve (A, figure 1A or 1B).
2. Disconnect the hose (B) from the elbow (C). Remove the elbow (C).

3. Place the washer fully in the hole so it stands vertically.
4. Reinstall the elbow (C) and then connect the hose (B). Tighten the nut on the elbow securely, after elbow is properly positioned.

ASSEMBLY INSTRUCTIONS

1. Insert one spacer (B, figure 2) in each one of the two mounting holes in the push bar (C). Position the push bar between "mounting ears" on backside of blade. Push the 1/2-13 x 1 capscrews (D) through as shown and install locknuts (E). Torque locknuts to 75ft. lbs. (103 Nm).

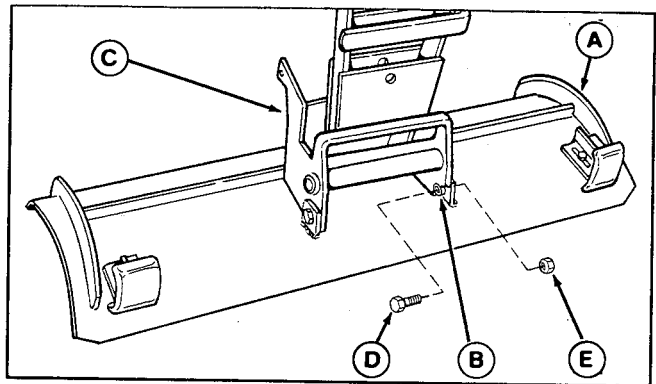


Figure 2
A. Blade Assembly
B. Spacer
C. Push Bar
D. Capscrews
E. Locknuts

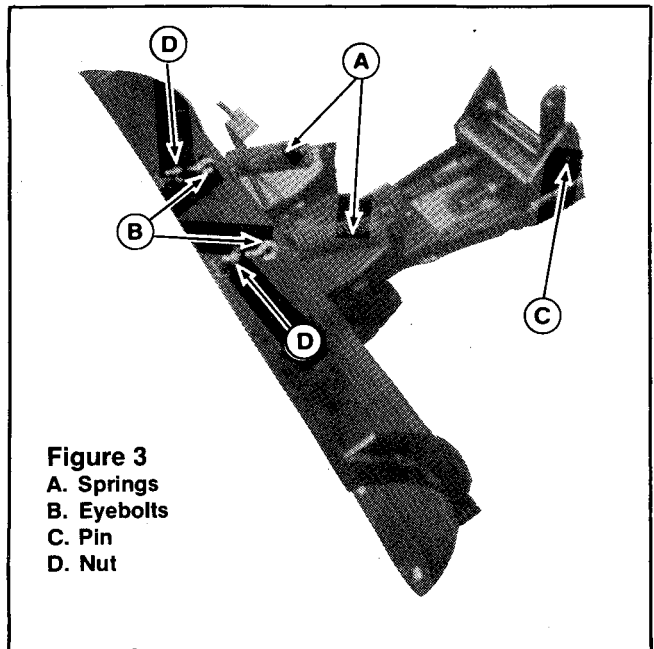
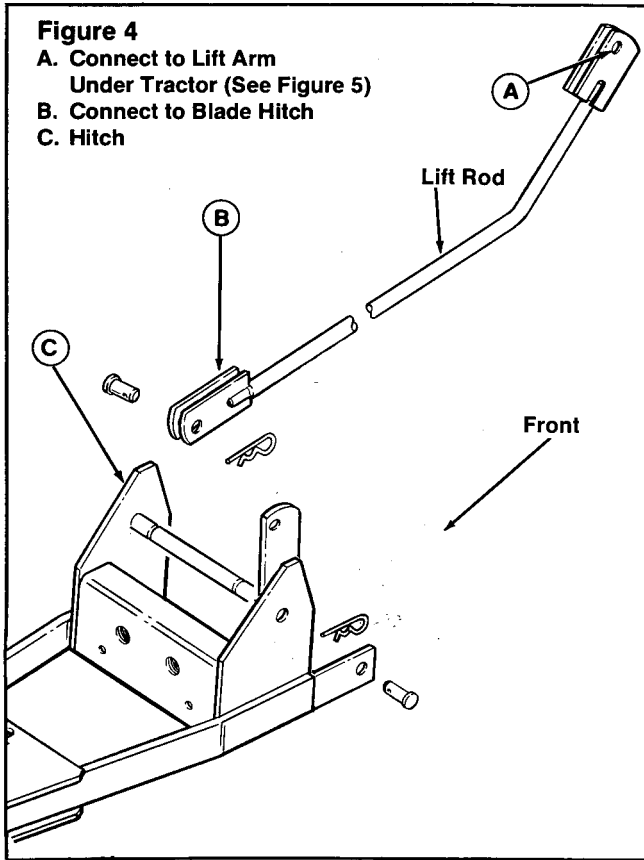


Figure 3
A. Springs
B. Eyebolts
C. Pin
D. Nut

2. Install the two springs (A, figure 3) as follows.
 - a. Insert eyebolts (B) through the lugs and install a 5/16 nut (D) on each eyebolt, flush with end of eyebolt.
 - b. Hook rear ends of springs (A) onto push bar as shown. Stretch with pliers to hook springs onto eyebolts.

- c. Tighten the nuts (D) to expose about 3/4" thread. Install a second 5/16 nut onto each eyebolt. Hold first nut and tighten second nut against it.



3. Insert the lift rod (figure 4) into position under tractor.
4. Connect rear of lift rod (C, figure 5) to lift lever under tractor with pin (A) and clip (B). Route the lift rod under engine mount and above axle. Front of lift rod is shown in figure 8 extending under front bumper.

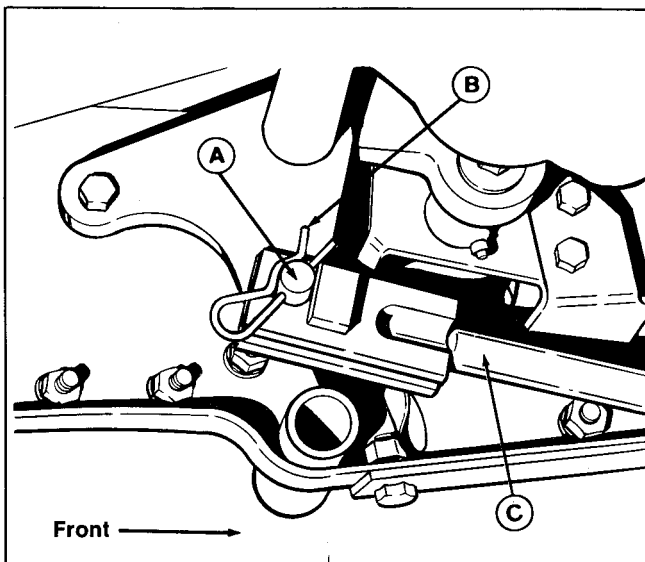


Figure 5
A. Pin
B. Clip
C. Lift Rod

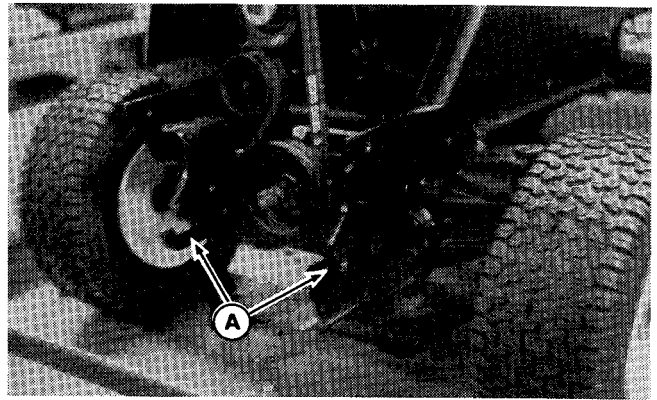


Figure 6
A. Hitch

5. Position the dozer blade assembly in front of tractor hitch (figure 6). Raise the dozer hitch, and hook the pins (D, figure 7) onto the tractor hitch (A). Then raise the bar on either side of hitch. Insert pin (B) through hole in bar and tractor and secure pin with a clip (C).

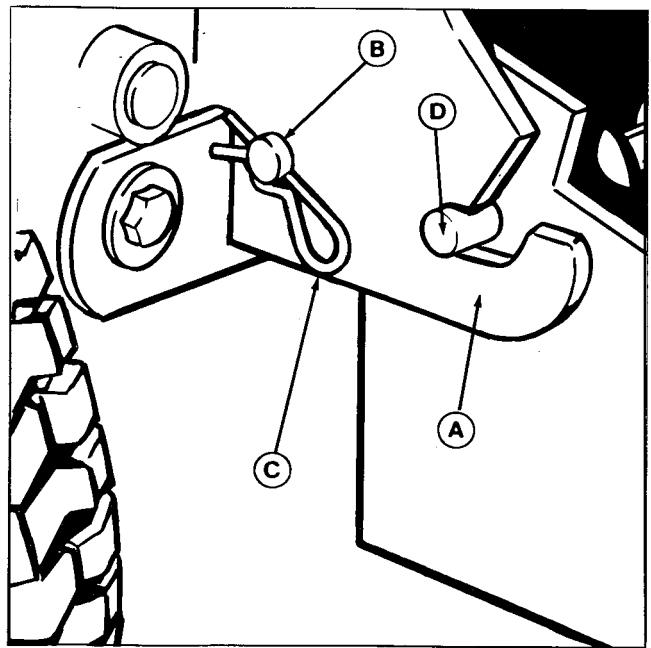


Figure 7
A. Tractor Hitch C. Clip
B. Pin, Moveable D. Pin, Dozer

6. Connect the lift rod (C, figure 8) to the hitch with pin (B) and clip (A). Install pin so clip is to outside as shown.

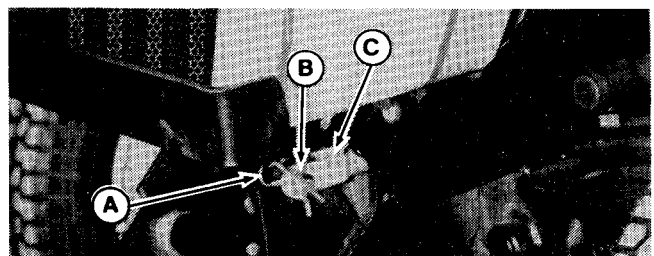


Figure 8
A. Clip
B. Pin
C. Lift Rod

NOTE

Steps 7 and 8 only apply to Mfg. No. 1691000.
Mfg. No. 1691365 Dozer Blade is not equipped with control handle.

- Attach the support (J, figure 9) to tractor frame as follows. First remove the existing hardware (A, figure 10) at rear engine base plate. Install the support at this location, using new 3/8-16x1-1/4 carriage bolt, lockwasher, and existing nut.

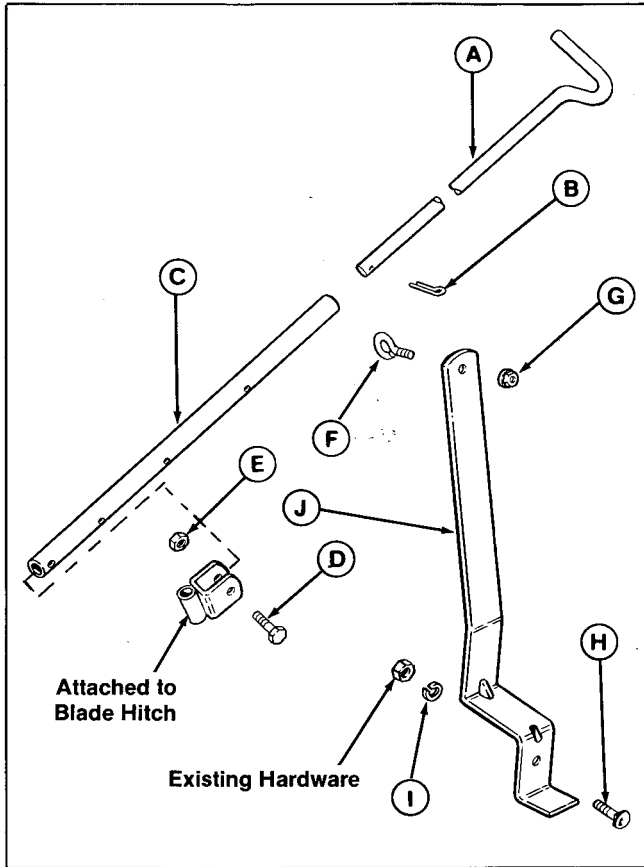


Figure 9

- | | |
|----------------------------|---------------------------------|
| A. Handle | F. Eyebolt |
| B. Cotter Pin | G. Nut, 1/4 |
| C. Extension | H. Bolt, Carriage, 3/8-16x1-1/4 |
| D. Capscrew, 5/16-18x1-1/2 | I. Lockwasher, 3/8 |
| E. Nut, 5/16 | J. Support |

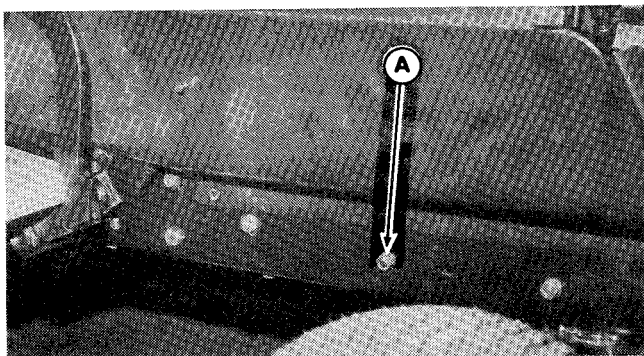


Figure 10

A. Remove to Install Control Rod Support

- Insert front end of extension (C, figure 9) into fork and attach with capscrew (D) and nut (E). Slip eyebolt (F) onto handle (A). Connect the handle (A)

to the extension (C) with cotter pin (B). Spread both legs of cotter pin fully. Connect the eyebolt (F) to support with the nut (G). The control rod is shown in figure 11. (Figure 11 shows early model with one-piece control rod.)

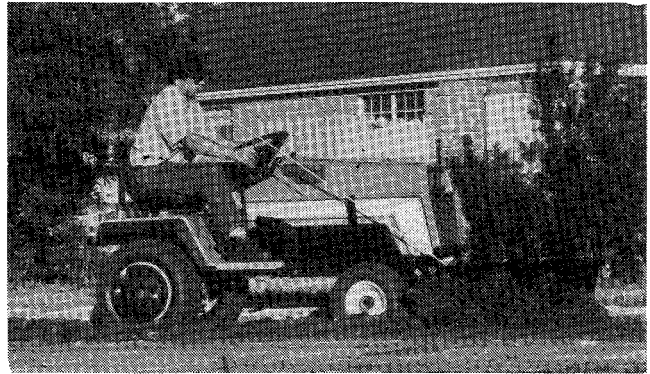


Figure 11

INSTALL HYDRAULIC CYLINDER
(Mfg. No. 1691365 only)

For dozer blade equipped with hydraulic cylinder, the hoses must be attached to cylinder as follows. Coat all threads with sealant before installing.

NOTE

Illustration shows cylinder installed. However, hoses must be attached before installing cylinder.

- Position the cylinder as shown in Figure 12 with rod toward dozer blade.

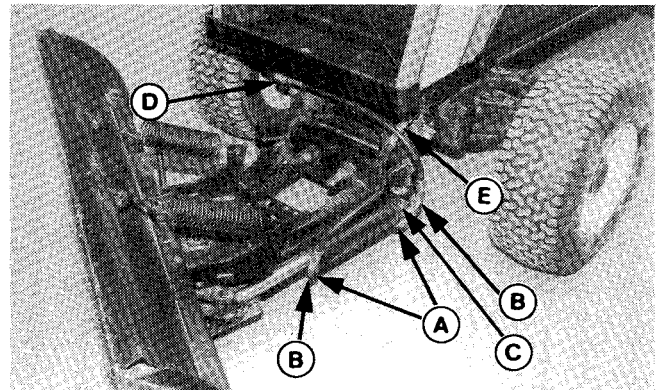


Figure 12.

- | |
|-----------------------|
| A. Male Fittings |
| B. Tube Ends |
| C. Rear Mounting Hole |
| D. Rear Elbow |
| E. Front Connector |

- Clean off the hydraulic hose caps and the hydraulic couplers on the tractor, then proceed to step 3 to make connections.
- Install the two male fittings (A).
- Connect the two hoses by installing 90° tube ends (B) onto the male fittings. To be sure the hoses are properly indexed, position as follows. With cylinder positioned so that rear mounting hole (C) is straight up and down, the tube ends should be positioned so that hoses are straight up.

5. On the rear hose, install the elbow (D) pointing in opposite direction of the elbow attached to cylinder. Then, install the connector onto the elbow.
6. Install the other connector (E) onto the front hose.
7. To secure cylinder at rear:
 - a. Install cotter pin (A, figure 13) in one end of pin (B). (Pin (B) should have holes in each end.)
 - b. Insert pin through mounting bracket and cylinder.
 - c. Install other cotter pin.

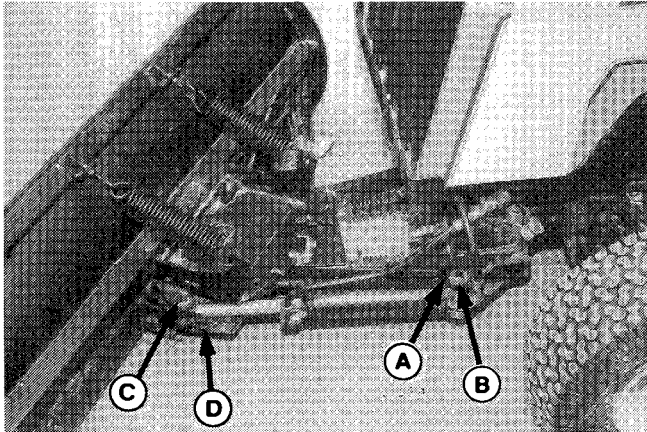


Figure 13.

- A. Cotter Pin
- B. Pin
- C. Flat Head Pin
- D. Spring Clip

8. To secure cylinder at front:
 - a. Insert pin (C) from top through mounting bracket and cylinder rod.
 - b. Install spring clip (C).



WARNING

Do not attempt to adjust, repair, or service the snow plow/ dozer blade while the tractor engine is running.

ADJUSTMENT- TRANSPORT HEIGHT

1. Start the engine and raise the dozer to transport position, then stop the engine.
2. At transport position, the rear of the dozer hitch (C, figure 14) should not touch tractor upstops. To check, with blade in raised position, raise up on blade by hand. You should be able to raise blade on or two inches before dozer hitch touches tractor upstops. To adjust dozer height:
 - a. Loosen both locknuts (A, figure 14)
 - b. Turn bolts (B) in equal amounts. Turn bolts in (clockwise) to lift blade; turn bolts out (counter-clockwise) to lower height.
 - c. Retighten nuts (A) when adjustment is correct.

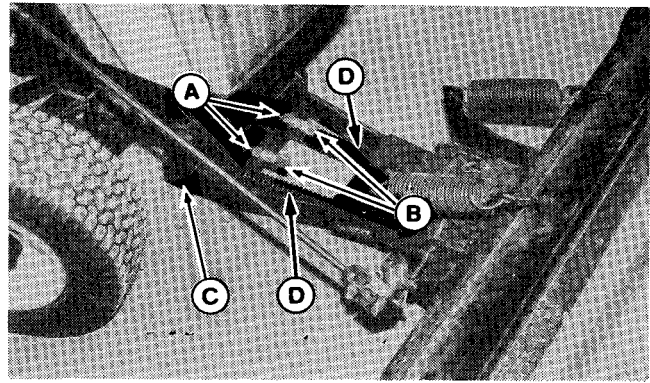


Figure 14.

- A. Nuts
- B. Bolts
- C. Hitch
- D. Springs

ADJUSTMENT - SKID SHOES

For clearing snow from uneven or gravel surfaces, adjust the skid shoes so the blade rides above the ground. For grading, leveling or plowing smooth surfaces, adjust the skid shoes so the blade rides on the ground.

To adjust the skid, raise the blade off the ground and block with a piece of wood. Loosen hardware to move the skid shoes up or down to the desired height. Make sure the skid shoes are set to equal height.

ADJUSTMENT-DOWN PRESSURE

Each of the two long springs (D, figure 14) is secured onto rod with a nut. To increase the pressure of the blade on the surface, turn these nuts to compress springs. To allow the blade to float over the surface, back off the nuts, reducing spring compression. Always leave at least two full threads at end of rods.

BLADE CONTROL-MFG. NO. 1691000

To change blade angle, rotate the control handle (A, figure 9) change blade angle, then release the handle. Use the hydraulic lift lever to raise for transport or lower for operation.

BLADE CONTROL-MFG. NO. 1691365

Use the outer hydraulic control lever to angle the blade. Push lever forward to angle right, or pull back to angle left. Use the inner hydraulic control lever to raise for transport or lower for operation.

OPERATION

When dozing, push the dirt to the desired location, then drag the blade backwards for final leveling. Pack down the dirt or gravel by driving the tractor over the leveled area.

Use any slight grade to your advantage. Plow downhill and set the blade angle so that plowed material (especially snow) is moving down hill as it leaves the blade. For large drifts of snow, bite off small amounts instead of plowing a full blade width.

Set tractor speed to obtain the needed power to move the material. Operate at a safe speed, depending on conditions, so that you have complete control of the tractor. Rear wheel weights and chains are recommended for slippery surfaces.

For maximum ground clearance, transport the blade to and from work areas fully raised and angled straight ahead.

NORMAL CARE

After dozing jobs, hose down the blade to remove excess dirt. Coat bare metal surfaces to prevent rusting. Lightly oil all pivot points.

If the wear plate on the bottom of the blade is worn excessively, replace it with a new one, or reverse it.

REMOVAL

To remove the dozer blade, disconnect hitch from tractor hitch, and disconnect handle from handle support. Also be sure to remove the lift rod (C, figure 5) completely. On Mfg. No. 1691365, disconnect the hoses from the two front couplers. Be sure to install yellow caps onto front couplers, and metal caps onto hydraulic hoses.



SAFETY RULES

- Do not allow anyone to use the snow plow/dozer blade unless they have been instructed on how to operate it safely.
- Never attempt to adjust, repair or service the snow plow/dozer blade while the tractor engine is running.
- Do not allow others near the snow plow/dozer blade while it is being used.
- Use the snow plow/dozer blade only in daylight, or good artificial light.
- Always lower the snow plow/dozer blade completely to the ground when leaving it unattended to prevent it from being accidentally lowered and causing injury.
- Always operate the tractor at reasonable speeds to prevent the blade from catching an object and stopping the tractor abruptly.
- Be particularly careful and operate at low tractor speeds in any area where the blade can hook on solid objects. Such objects can cause the tractor to be jarred or come to an abrupt stop.
- Also see tractor operator's manual.

